

# THE MINERAL INDUSTRY OF

# GERMANY

By Staff<sup>1</sup>

Germany's economic situation improved in 1994 as a result of a strengthened export market and the continued strong activity in the domestic construction industry, especially in the eastern States of the country. The gross domestic product (GDP) in Germany in 1994 increased by 2.9% for the country as a whole. Because the old and new countries were still not entirely comparable in 1994, data for both parts were still being collected by the Federal Bureau of Statistics. The GDP rose by 2.3% in the western States and by 9.2% in the eastern States during 1994. Comparable figures for 1993 were a drop of 1.7% for the western States and a rise of 5.8% for the eastern States. All German GDP in 1994 was the equivalent of US\$2,047 billion, of which 89.7% was accounted for by the western States and 10.3% by the eastern States, compared with 91.2% for the western States and 8.8% for the eastern States in 1993.

During the year, private consumption in the country as a whole increased by 4.0% while exports, based on value, rose by 7.3% and imports, also based on value, rose by 5.9%. In the western States, private consumption rose by 3.5% and in the eastern States, it rose by 7.6%. With respect to foreign trade, exports of goods made in the western States increased by 8.1% while exports of goods from the eastern States rose by 23.1%, both based on value. Imports increased in both sections of the country, by 7.0% in the western States and 10.6% in the eastern States, based on value. The trade balance for the country as a whole for 1994, at a surplus the equivalent of US\$11.7 billion, was more than double the US\$5.5 billion surplus of 1993. In the construction industry, while building in the western States leveled off during 1994, it increased in the eastern States by 40% for the industry as a whole and by 25% for private dwellings.

Despite Germany's improving economic situation, some problems persisted in 1994. Unemployment during the year averaged 9.6% for the country as a whole and was 8.3% in the western States and 14.8% in the eastern States, figures that the Government considered too high. Despite the expanding world economy and international trade and increased German exports, the fact that the German Mark (DM) increased in value against the U.S. dollar and the currencies of other important trading partners prevented German exports from increasing even more than they did, thus limiting industrial production and thereby also the expansion of the labor market.

## Government Policies and Programs

The German Government's policies were concerned with fighting inflation, lowering unemployment, increasing the country's international competitive status, safeguarding the environment, incorporating the five States of the former German Democratic Republic (GDR) into the Federal Republic, and other issues in an effort to revive the economy. Of all the issues, the incorporation of the eastern States into the Federal Republic remained one of the most complex. The agency responsible for privatizing the former East German state holdings, the Treuhandanstalt (Trustee Agency), ceased to exist at yearend 1994. It was replaced by several smaller agencies for specialized tasks, such as overseeing the cleanup of failed mining operations. The property still held by the Treuhandanstalt at the end of the year was transferred to the Interest Management Association (Beteiligungs Management Gesellschaft mbH). Another group that took over some of the Treuhandanstalt' responsibilities of the Federal Agency for Special Tasks Resulting from Unification (Bundesanstalt für vereinigungsbedingte Sonderaufgaben or BVS). The BVS was given the responsibility for supervising the agreements the Treuhandanstalt made with buyers and investors and liquidating the 3,500 unprofitable former East German companies it inherited from the Treuhandanstalt.

When the Treuhandanstalt was established in March 1990 to privatize the state-run economy of the GDR, it became the owner of 13,781 industrial enterprises plus 10,652 small shops and other retail businesses, employing about 4 million people, 3.5 million of which were industrial workers. The industrial enterprises included the large lignite and potash mines, steel plants, industrial minerals mines and plants, chemical concerns, lignite-fired powerplants, and other mineral related concerns. In the 56 months of its existence, it privatized the retail outlets, closed 3,527 industrial enterprises and sold the rest. Of the industrial enterprises sold, 2,679 were management buyouts, 855 were sold to foreign investors, and the rest were sold to west German investors. The Treuhandanstalt attracted investment commitments into the eastern States for the equivalent of about US\$130 billion and earned the equivalent of about US\$40 billion from sales. The Treuhandanstalt left the federal Government with a debt of about US\$170 billion. This debt was partly the result of saving jobs in unprofitable enterprises, even though 60% of the employees in the enterprises that the Treuhandanstalt took over lost their jobs.

For example, the subsidy for saving jobs at the EKO Steel plant was at a cost of the equivalent of over US\$430,000 per job for thousands of jobs. The same held true for the shipbuilding and other industrial sectors of the eastern economy.

Of the 855 enterprises sold to foreign investors, the major investing countries, with the number of enterprises bought, were Switzerland (139), the United Kingdom (124), Austria (100), the Netherlands (96), France (88), the United States (77), Italy (38), and Denmark (26). Foreign sales resulted in proceeds of the equivalent of US\$4 billion, investment commitments of US\$14 billion, and 152,387 guaranteed jobs. Buyers from the United States paid the equivalent of US\$665 million and made investment commitments of the equivalent of US\$2.3 billion.

Late in 1994, the federal Government established a new fund of about US\$310 million to provide subsidized, long-term loans to eastern German companies. It also presented new tax incentives to encourage private investment in the eastern States. Companies selling stakes in German companies would not have to pay taxes on their profits if they reinvested the money in the eastern States. These measures were put into effect in an effort to help support the medium-sized companies in the eastern States that were hit hard by the change of the economic situation following unification. During 1994, the federal Government continued to send the equivalent of US\$100 billion per year into the eastern States in the form of subsidies and social benefits.

## Environmental Issues

Policies dealing with the environment in Germany are the bailiwick of the Minister for the Environment. With regard to mining, environmental concerns are addressed under the federal Mining Law and its provisions for environmental impact assessments that are to be completed before mining can start. The objective of the environmental impact assessment is the identification and evaluation of all environmental consequences of a planned project, taking into account various design options, including the zero option. The process in Germany, as in other countries, is a risk for the concern involved because there is no guarantee that after the completion of the assessment, involving considerable time and resources, that the project will be approved. Under the provisions of the Federal Mining Law, the following are required in conjunction with the assessment:

- Description of the expected environmental consequences.
- Data to support the identification and estimate of the consequences.
- Description of the preventive measures for avoidance, reduction, equalization, or substitution of the consequences.
- Data concerning the environment and its components.
- Data on alternatives to the planned project.
- Difficulties associated with gathering the necessary data.

In addition to following the environmental laws and regulations enacted by the Government, individual companies and plants strived to reduce pollution. For

example, of the US\$56 million spent on the electric arc steel furnace that began operation at the Georgsmarienhütte GmbH near Hannover, one-quarter was for pollution controls. The crude petroleum division of VEBA focused on the development of reduced emission fuel oils and optimizing the recycling of the raw materials contained in used plastics at its coal oil facility at Bottrop. In 1994, the VAW Aluminium AG (VAW) Group, active in the aluminum industries and others, invested the equivalent of US\$12 million in environmental protection measures. Of the total, 59% went for air pollution control and noise abatement, 27% went into waste disposal, and 14% went into water protection. The Preussag Group, with interests in areas as diverse as steel, crude petroleum, and information technology, stated in its 1994 Annual Report that a feeling of responsibility towards the environment was a high priority throughout the Group companies. This commitment was shown by an increase of 13% in total expenditures for environmental protection in 1994. Clean air and water protection absorbed the majority of the funds, but expenditures on noise reduction, transport of hazardous materials, and the treatment and decontamination of inherited pollution also increased.

## Production

Production in the German metals and minerals industry depended on a variety of forces. The easing of the worldwide recession was a positive factor for this industry that depends so much on exports, but the strength of the DM with respect to other currencies had a dampening effect on the production of the consumer products that are exported, thus limiting production somewhat. The high costs of production in Germany compared with competitor producers and the upheaval caused by the continuing pains of unification in trying to balance production between the eastern and western States helped to constrain production. However, the continued construction boom in the eastern States helped to maintain or even increase production in some areas of the metals and minerals industry. In order to at least maintain, and potentially increase, production and activity in the metals and minerals industry, producers and the labor unions were working to restructure the traditional work rules that some called a restrictive factor in the expansion of the industry. Most persons involved in the negotiations sought for more flexibility in wage settlements, time and attendance regulations, and training programs, among other factors. (See table 1.)

## Trade

As a principally processing nation, Germany relied on imports to feed the bulk of the metals industry, transforming the imported raw materials into products that supplied the manufacturing industry providing the bulk of exported products. Based on value, manufactured products provided about 82% of total exports in 1994, while manufactured

products accounted for 68% of total imports. Of the exports, street vehicles represented 18% of the total manufactured products exported in 1994, followed by machinery (16%), chemicals (15%), electrical equipment (14%), iron and steel semimanufactures (3%), and all other products 34%). For imports of manufactured products, electrical equipment represented 14% of the total, followed by chemicals (12%), street vehicles (11%), foodstuffs (7%), machinery (7%), textiles (6%), and all others (43%).

### **Structure of the Mineral Industry**

The structure of the industry in Germany and the principal companies operating in the production and processing of metals and minerals are shown in table 2. The restructuring and privatization of the facilities in the eastern States continued in 1994, with the Treuhandanstalt retaining control of some of the companies until they are closed or sold. The Treuhandanstalt ceased to exist at yearend 1994 and its functions of enforcing contracts and overseeing the few enterprises it still owned at the end of the year were transferred to other agencies. Most of the producing and processing facilities still in operation in the eastern States were small compared with those in the western States, except for the lignite and potash operations, which were large by any standards.

### **Commodity Review**

#### ***Metals***

**Aluminum.**—Germany's primary aluminum industry in 1994 was the largest in the European Union (EU), accounting for 29% of its total primary aluminum production, but was medium-sized when compared with other world producers, accounting for 2.7% of total world production. The strong economic growth in Germany's export destination partners and the resulting increased demand and increased price of aluminum should have signaled an increase in production for the country. However, Germany's primary aluminum production fell by 8.8% in 1994 compared with 1993, mainly as a result of the high cost of production in Germany and the voluntary production cuts that were internationally negotiated to ease the oversupply of the metal that had been the case for the last few years. VAW, which accounted for 78% of Germany's primary aluminum production, announced near yearend that it had decided to convert its primary smelter at Toeing in southern Germany to a recycling plant. One of the main reasons for this decision was the high cost of shipping the alumina feed. Renegotiation of electricity supply contracts was expected to help ease costs at other VAW smelters, and it was hoped that the company could thereby bolster its international competitiveness. The company also announced plans to improve its position in downstream fabrication, investing in and expanding foil production, flexible packaging, and cast and sheet products for the automobile industry.

**Steel.**—The German steel industry rebounded in 1994 along with other sections of the national economy in response to increased domestic and international demand. The steel-consuming portions of industry, such as the automotive sector, demanded more steel and the construction industry, especially in the eastern States, continued to demand more steel as commercial and residential building maintained a brisk pace. Although some steel companies were in danger of closing because of such poor financial results for a couple years, restructuring, mergers, and cost-cutting measures saved the companies and all were showing considerably better financial results at yearend 1994 than had been the case for a few years.

In the eastern States, considerable effort went into preventing the closing of the largest steel plant in what had been the GDR, the EKO Stahl AG plant in Eisenhüttenstadt. In 1991, the plant had a raw steel capacity of 2 million metric tons per year (Mmt/a) and a rolled steel capacity of 2.5 Mmt/a. In 1990, EKO Stahl employed more than 12,000 persons. After several false starts—the Italian group Riva dropped its bid suddenly and was then followed by unsuccessful bids by Krupp Steel, the Hegemann group from Bremen, a consortium led by Hamburger Stahlwerke, and investors from Russia and Kazakhstan—the Treuhandanstalt successfully negotiated sale of the plant to the Cockerill Sambre group of Belgium, effective January 1, 1995. Cockerill Sambre gained 60% of the EKO works and the Treuhandanstalt retained 40%, providing that Cockerill Sambre could acquire the remaining 40% at any time, but that the BVS could not sell its 40% to anyone but Cockerill Sambre before December 31, 1999. Modernization of the plant was scheduled to be completed by yearend 1997. The modernization of the plant's cold-rolling facility was scheduled for 1996 at a cost of US\$79 million; construction of a 1.4 Mmt/a blast furnace was scheduled to be completed in the first half of 1997 at a cost of US\$206 million; and the installation of a hot-rolling line was scheduled for completion in the second half of 1997; when a US\$123 million upgrade of the plant's energy and power distribution system was also to be completed. The absence of a hot-rolling line had been the main reason for the previous inefficiency and high operating costs of the plant. Construction of a hot-rolling line was started but abandoned in 1985 as a result of lack of funds. Slabs were shipped to the former Soviet Union or to West Germany to be hot-rolled and shipped back to EKO to be cold-rolled and fabricated. Between October 1990, when the Treuhandanstalt took over EKO, and yearend 1994, the Treuhandanstalt provided more than US\$840 million in subsidies to keep the plant operating. Cockerill Sambre pledged to guarantee 2,300 jobs and to invest about US\$350 million.

#### ***Industrial Minerals***

**Potash.**—The potash industry in Germany in 1994 was a far more settled industry than had been the case since late 1990. The merger of Mitteldeutsche Kali AG and Kali und

Salz AG was completed and the new company, Kali und Salz Beteiligungs AG, began operations in conjunction with the Beteiligungs Management Gesellschaft Berlin mbH, one of the successor agencies of the Treuhandanstalt. These two entities together owned, at 51% and 49% respectively; Kali und Salz GmbH (K&S), based in Kassel, concentrates on mining operations. Other operations of the two former companies were incorporated into the structure of the Kali und Salz group with several of the former operations existing under new names and owned entirely by Kali und Salz Beteiligungs AG; the remaining operations were owned entirely or partially by K&S, itself owned by the two merged entities.

K&S operated six potash mines in Germany with a total capacity of 3.65 Mmt/a of potassium oxide by 1997, after closings and restructuring. Sales by K&S of potassium chloride and potassium sulfate increased in 1994, not only in Germany, but also in other parts of Europe. Markets outside Europe accounted for about one-quarter of sales in 1994. Although sales increased substantially in 1994, K&S management stated in its 1994 annual report that sales would probably have been even higher had it not been for the weak U.S. dollar and the delays experienced in the political process that governed the merger of the potash and rock salt operations in 1993. However, strong sales in 1994 kept K&S production facilities running almost at full capacity during the year and led to the cancellation of planned temporary shutdowns. In addition to the agricultural potash market, K&S also produced industrial products, such as industrial-grade potash and magnesium sulfate, and introduced several new products for the pharmaceutical and building materials industries. The salt sector of K&S did not fare as well as the potash sector during 1994. Although sales of de-icing salt remained about the same as 1993, sales of industrial salt products declined, which K&S blamed on underutilized capacity and increased imports from eastern Europe.

K&S reported investing the equivalent of US\$155 million in tangible assets during 1994. Again citing procedural delays in winning the approval of the merger in 1993, the company noted that not all planned projects were implemented. The company concentrated its expenditures during the year on plants in Saxony-Anhalt and Thuringia. Emphasis was put on modernizing the mobile machinery, installing new conveyors and modern energy feeds, and a new hoist erected at the shaft of the Bernburg site. Surface investment programs focused on projects designed to achieve improvements in product quality, energy efficiency, environmental protection, and production efficiencies. A new shed was built at the Zielitz plant in Saxony-Anhalt to store up to 60,000 metric tons (mt) of finished products to provide greater flexibility in meeting seasonal fluctuations in sales. With regard to environmental safeguards, K&S installed new dust precipitators and filter systems to reduce dust emissions and continued to work on a program to lower the effluent volume from the Unterbreizbach plant to reduce salt contamination of the Werra River. At the Sigmundshall

plant in Lower Saxony, the construction of a plant to process slag salt from aluminum recycling plants proceeded according to plan.

The Bergmannsseggen-Hugo site was closed on schedule at yearend 1994, and plans were completed for the fill-in of the underground caverns and the dismantling of the plants. At the Merkers site, part of the Unterbreizbach plant, demolition of surface installations was begun as planned after the site was closed in 1993.

## Mineral Fuels

**Anthracite and Bituminous Coal.**—A major setback was dealt to the German hard coal industry in late 1994 when the Constitutional Court ruled that the "Kohlenpfennig," or coal penny, a 7.5% fee levied on all electricity bills to subsidize the steam coal mining industry and guarantee jobs for coal miners, was unconstitutional and that any money for the subsidy was to come out of general Government taxes. The cost of German coal was about US\$200 per mt compared with an average price of about US\$60 per mt on the international market. Debate began immediately on whether to raise federal taxes beyond the 10% increase already planned in 1995, or to end the subsidy. Negotiations were ongoing with the hard coal mining States to assume a larger share of the subsidy burden, considering the social benefits that the States receive from keeping the miners working. At yearend 1994 questions were being raised as to what effect ending the subsidy and opening the German hard coal industry to free-market forces would have on the steel and metals industry, both of which have complained in the past about the high cost of electricity in Germany and the effect it had on their production costs. The German steel industry has also been forced to buy German coking coal at prices higher than the international average to support the coking coal industry. In 1994, hard coal mining employed about 90,000 miners and the Government has been subsidizing the industry with about US\$5 billion per year since the surcharge was introduced in 1975.

**Lignite.**—After a year of negotiations, an agreement was signed in late 1994 between the Federal and State Governments for an enormous reclamation program for the lignite fields in the eastern States. The program called for spending the equivalent of US\$8 billion through 2002. The equivalent of about US\$150 million was to be provided by each of the successors of the Treuhandanstalt and the Federal Labor Office, with 75% of the remaining funds provided by the Federal Government and 25% provided by the eastern lignite mining States of Brandenburg, Saxony-Anhalt, Saxony, and Thuringia. In addition to cleaning up the sites and thereby providing agricultural and recreational land, the project reportedly would help guarantee about 20,000 jobs in the regions, many held by miners who lost their jobs when some of the lignite operations were shut down. The new agreement added to the equivalent US\$2.25 billion spent between 1991-94 for recultivation, dismantling of mining

machinery, and restructuring of processing factories. During this time, 49.2 kilometers square (km<sup>2</sup>) have been recultivated and another 101 km<sup>2</sup> kilometers are planned for 1995. In the Lausitz region in Saxony alone, 351 sites were registered as contaminated, 72 of which have been cleaned up.

A temporary guarantee was made for the lignite industry in the eastern States by the sale by the Treuhandanstalt of the former East Germany utility Veag, which had a monopoly on electricity production and distribution under the Communists, to a consortium of western Germany companies headed by RWE Energie, and also including PreussenElektra and Bayernwerk, for an estimated US\$5 billion. A consortium led by Rheinbraun, RWE's lignite arm, and PreussenElektra and Bayernwerk bought the Laubag lignite fields for an estimated US\$1.3 billion with a commitment to invest a further US\$3.7 billion in the fields during the next 20 years. Lignite mined from the former Laubag fields is slated to fire the powerplants owned by the former Veag. However, the long-term viability of these two ventures reportedly would depend on their ability to withstand increasing pressure from the expanding natural gas market. Energy consumption has been falling in the eastern States and natural gas has been making headway as a substitute for lignite in the area.

### **Infrastructure**

Germany had a total of 625,600 kilometers (km) of highways and roads, ranging from the high-speed Autobahn system to undeveloped gravel and packed-dirt country roads. Of the total, the Autobahn consisted of 10,814 km; national highways 43,786 km; state highways, 99,447 km; and municipal, country, and secondary roads 471,553 km. The railroad system included of 45,468 km of track, about 90% of which is Government-owned. Of the total, 44,769 km was 1.435-meter (m) standard-gauge and 699 km was 1.000-m gauge track. Pipelines included a 3,644-km line for crude petroleum, 3,946 km for refined products, and 97,564 km for natural gas. Inland waterways and canals consisted of 7,541 km and 31 major ports, with the Kiel Canal serving as an important connection between the Baltic and North Seas and the Rhein-Main-Danube Canal as a connection between the North Sea and the Black Sea. Major maritime ports included Hamburg, Rostock, Bremerhaven, Bremen, and Wilhelmshaven, which together accounted for about 70% of total merchandise traffic. In 1994, the German merchant marine consisted of 485 ships of 1,000 gross tons or more, totaling 4,541,441 gross tons. Of the total, 241 were cargo ships, 132 were container ships, 20 were roll-on/roll-off cargo ships, 20 were chemical tankers, 16 were liquefied natural gas tankers, 11 were bulk carriers, 7 were refrigerated cargo carriers, 7 were oil tankers, 7 were barge carriers, 6 were combination bulk carriers, 5 were combination ore/oil carriers, 5 were railcar carriers, 5 were short-sea passenger carriers, and 3 were passenger ships.

### **Outlook**

Germany's economy was expected to expand steadily for the next few years despite the huge burden of unification costs on the national economy. As growth in Germany's international trading partners increases, Germany's industrial production was expected to grow to meet the demands for consumer products. Unification was costing the western States the equivalent of about US\$100 billion per year, and although the GDP of the eastern States was growing, that growth was from such a low level that it was not having a significant impact on the economy of the country as a whole. Restructuring industries to be more efficient, in the western States as well as in the eastern States, resulted in an increasing number of jobs being lost, which, in turn, cut into the available resources of the Federal Government in the form of payments for unemployment compensation, retraining, and other social costs.

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<sup>1</sup>Test prepared Aug. 1995.

### **Major Sources of Information**

Statistisches Bundesamt (Federal Statistics Office)

Gustav-Stresemann-Ring 11

65180 Wiesbaden, Germany

Bundesanstalt für Geowissenschaft und Rohstoffe (Federal Institute for Geosciences and Natural Resources)

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3000 Hannover 51, Germany

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Bundesministerium für Forschung und Technologie (Federal Ministry for Research and Technology)

Heinemannstrasse 2

53175 Bonn, Germany

Bundesministerium für Wirtschaft, Abteilung III, Energiepolitik, Mineralische Rohstoffe (Federal Ministry for Economics, Section III, Energy Policy and Mineral Raw Materials)

Bonn-Duisdorf, Germany

Deutsches Institut für Wirtschaftsforschung (German Institute for Economic Research)

öningen-Luise-Strasse 5

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Telephone: 30 82 99 10

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### **Major Publications**

Aussenhandel (Foreign Trade), Wiesbaden, Statistisches Bundesamt.

Der Bergbau in der Bundesrepublik Deutschland: Statistische Mitteilungen der Bergbehörden (Mining in the Federal Republic of Germany: Statistical Reports), Clausthal-Zellerfeld, Bundesministerium für Wirtschaft.

Jahrbuch für Bergbau, Energie, Mineralöl und Chemie  
(Mining, Energy, Petroleum, and Chemical Yearbook),  
Essen, Glückauf GmbH.  
Metallstatistik (Metal Statistics), Frankfurt am Main,  
Metallgesellschaft AG.  
Multiple mining and processing industry publications.  
Production im Produzierenden Gewerbe nach Waren und  
Warengruppen (Production by Industrial Concerns by  
Goods and Groups of Goods), Wiesbaden, Statistisches  
Bundesamt.

Statistisches Jahrbuch für die Bundesrepublik Deutschlands  
(Statistical Yearbook for the Federal Republic of  
Germany), Wiesbaden, Statistisches Bundesamt.  
Wirtschaft und Statistik (Economics and Statistics),  
Wiesbaden, Statistisches Bundesamt.  
Wochenbericht (Weekly Report), Berlin, Deutsches Institut  
für Wirtschaftsforschung.

TABLE 1  
GERMANY: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity	1990	1991	1992	1993	1994
<b>METALS</b>					
<b>Aluminum:</b>					
Alumina, Al <sub>2</sub> O <sub>3</sub> equivalent:					
Calcined:					
Eastern states	50,500 r/	XX	XX	XX	XX
Western states	922,000	XX	XX	XX	XX
Total	XX	863,000	857,000	840,000	824,000
Hydrate: Western states	1,170,000	1,150,000	1,120,000	1,110,000	951,000
<b>Metal:</b>					
Primary:					
Unalloyed:					
Eastern states	19,700	XX	XX	XX	XX
Western states	720,000	XX	XX	XX	XX
Total	XX	690,000	603,000	552,000	505,000
Alloyed: Western states 3/	527,000	511,000	525,000	475,000	470,000
Secondary:					
Eastern states	51,600	XX	XX	XX	XX
Western states (unalloyed and alloyed)	539,000	XX	XX	XX	XX
Total	XX	542,000	536,000 r/	408,000	438,000
Arsenic, white: Ar <sub>2</sub> O <sub>3</sub> content: Western states e/	360	300	300	300	250
<b>Cadmium metal, refinery:</b>					
Eastern states	17	XX	XX	XX	XX
Western states, including secondary	973	XX	XX	XX	XX
Total	XX	1,050 r/	941	1,060 r/	1,120
Cobalt metal including alloys: Western states	1,300 4/	975 4/	815 4/	602 4/	856 4/
<b>Copper:</b>					
Mine output, Cu content:					
Eastern states	3,560	--	--	--	--
Western states (recoverable)	3	--	--	--	--
Total	XX	--	--	--	--
<b>Metal:</b>					
Smelter:					
Primary:					
Eastern states	14,000 e/	XX	XX	XX	XX
Western states	184,000	XX	XX	XX	XX
Total	XX	172,000	178,000	141,000 r/	237,000
Secondary: Western states	70,000	70,000 e/	70,000 e/	70,000 e/	54,800
Refined: Primary including secondary:					
Eastern states	56,700	XX	XX	XX	XX
Western states	476,000	XX	XX	XX	XX
Total refined	XX	522,000	582,000 r/	632,000	592,000
Of which secondary in Western states	272,000	318,000	345,000	361,000	336,000
<b>Gold, mine output, Au content:</b>					
Eastern states	kilograms	1,750	XX	--	--
Western states	do.	18 e/	XX	--	--
Total	do.	XX	10 e/	--	--
<b>Iron and steel:</b>					
Ore and concentrate: Western states:					
Gross weight	83,500	120,000	109,000	146,000 r/	100,000 e/
Fe content	11,700	16,800	15,300	20,400 r/	14,000 e/
<b>Metal:</b>					
Pig iron:					
Eastern states	2,160,000	XX	XX	XX	XX
Western states	29,600,000	XX	XX	XX	XX
Total	XX	31,000,000 r/	28,500,000	27,000,000	29,900,000
Ferrous alloys:					
Eastern states	125,000	54,000	10,000 e/	10,000 e/	20,000 e/
Western states (includes speigeleisen, unspecified crude iron, and blast furnace ferromanganese with 2% or more carbon)					
Of which ferrochromium:	441,000 e/	191,000 r/	169,000 r/	101,000 r/	47,000
Eastern states	21,000 e/	--	--	--	--
Western states	37,500 e/	33,700 e/	26,500 e/	16,400 r/	17,300

See footnotes at end of table.

TABLE 1--Continued  
GERMANY: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity	1990	1991	1992	1993	1994
<b>METALS--Continued</b>					
<b>Iron and steel--Continued:</b>					
<b>Metal--Continued:</b>					
<b>Steel, crude:</b>					
Eastern states	5,550,000	XX	XX	XX	XX
Western states	38,400,000	XX	XX	XX	XX
Total	XX	42,200,000	39,700,000	37,600,000	40,800,000
<b>Semimanufactures:</b>					
Eastern states	4,000,000 e/	XX	XX	XX	XX
Western states	29,700,000	XX	XX	XX	XX
Total	XX	32,700,000	31,400,000	29,900,000	32,100,000
<b>Lead:</b>					
<b>Mine output, Pb content, recoverable:</b>					
Western states	7,210 r/	5,930	1,650 r/	--	--
<b>Metal:</b>					
<b>Smelter:</b>					
Eastern states	15,000 e/	XX	XX	XX	XX
Western states	162,000	XX	XX	XX	XX
Total	XX	161,000	175,000	175,000 r/	189,000
<b>Refined, primary:</b>					
Eastern states	45,500	XX	XX	XX	XX
Western states	162,000	XX	XX	XX	XX
Total	XX	161,000 r/	175,000	175,000	175,000
Secondary: Western states	187,000	202,000	179,000	160,000 r/	156,000
<b>Nickel:</b>					
Mine output, Ni content: Eastern states	872	--	--	--	--
Metal, refined: Eastern states	1,660	850	500 r/ e/	--	--
<b>Platinum-group metals:</b>					
<b>Mine output, metal content: Eastern states</b>					
	kilograms	2,020	1,100 e/	--	--
Metal, refined: Western states e/	do.	65,000	65,000	60,000	75,000
<b>Selenium metal:</b>					
Eastern states	15 e/	XX	XX	XX	XX
Western states	110 e/	XX	XX	XX	XX
Total e/	XX	110	125	120	200
<b>Silver:</b>					
<b>Mine output, Ag content: (recoverable)</b>					
Eastern states	kilograms	35,000	XX	XX	--
Western states	do.	5,630	XX	XX	--
Total	do.	XX	4,480	960	--
<b>Metal, refined:</b>					
Eastern states	do.	175,000	XX	XX	XX
Western states	do.	600,000 e/	XX	XX	XX
Total e/	do.	XX	700,000	630,000	600,000
<b>Tin:</b>					
Mine output, Sn content: Eastern states	1,810	118	--	--	--
<b>Metal: Primary including secondary:</b>					
Eastern states	2,860	XX	XX	XX	XX
Western states	500	XX	XX	XX	XX
Total	XX	700	200 r/ e/	179 r/	200 e/
<b>Uranium concentrate, U<sub>3</sub>O<sub>8</sub> content:</b>					
Eastern states	2,970	XX	XX	XX	XX
Western states	11	XX	XX	XX	XX
Total	XX	10	232	116 r/	500 e/
<b>Zinc:</b>					
<b>Mine output, Zn content: Western states:</b>					
Analytic content	58,200	54,000	14,300	--	--
Recoverable content	49,100	45,600 r/	11,800	--	--
<b>Metal:</b>					
Eastern states	12,700	XX	XX	XX	XX
Western states (including secondary)	338,000	XX	XX	XX	XX
Total	XX	346,000	383,000	381,000	360,000
<b>INDUSTRIAL MINERALS</b>					
<b>Abrasives:</b>					
Natural: Pumice: Western states	318,000	366,000	591,000	647,000	504,000
Artificial corundum: Western states 3/	87,400	68,500	58,600	58,900	56,600
<b>Barite, marketable:</b>					
Eastern states (contained BaSO <sub>4</sub> )	61,400	XX	XX	XX	XX
Western states	148,000 r/	XX	XX	XX	XX
Total	XX	164,000	157,000	131,000 r/	145,000
<b>Boron materials; Processed borax, Na<sub>2</sub>B<sub>4</sub>O<sub>7</sub> 10H<sub>2</sub>O content: Eastern states e/</b>					
	4,000	3,000	2,000	2,000	1,500

See footnotes at end of table.

TABLE 1--Continued  
GERMANY: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity	1990	1991	1992	1993	1994
<b>INDUSTRIAL MINERALS--Continued:</b>					
Bromine: Western states e/	1,500	1,500	750	750	750
Cement:					
Clinker: Western states (intended for market)	1,310,000	1,050,000	1,220,000	1,110,000	1,160,000
Hydraulic:					
Eastern states	7,230,000	XX	XX	XX	XX
Western states	30,500,000	XX	XX	XX	XX
Total	XX	34,400,000	37,500,000	36,600,000	40,200,000
Chalk, crude including ground:					
Eastern states	300,000 e/	XX	XX	XX	XX
Western states	412,000	XX	XX	XX	XX
Total	XX	600,000 e/	516,000 e/	440,000	445,000
Clays:					
Bentonite: Western states 3/	577,000	583,000	581,000	473,000 r/	500,000 e/
Bleaching and Fuller's earth: Western states 3/	653,000	708,000	673,000	670,000 e/	600,000 e/
Ceramic clay:					
Eastern states	300,000 e/	XX	XX	XX	XX
Western states	3,040,000	XX	XX	XX	XX
Total	XX	3,000,000 e/	3,120,000	3,290,000	3,540,000
Fire clay:					
Eastern states	400,000 e/	XX	XX	XX	XX
Western states	1,110,000	XX	XX	XX	XX
Total	XX	1,080,000	1,280,000	1,190,000	998,000
Kaolin, marketable:					
Eastern states	200,000 e/	XX	XX	XX	XX
Western states	684,000	XX	XX	XX	XX
Total	XX	684,000	1,190,000 r/	981,000 r/	1,000,000 e/
Unspecified and other:					
Eastern states	400,000 e/	XX	XX	XX	XX
Western states	533,000	XX	XX	XX	XX
Total	XX	761,000	571,000	888,000	900,000 e/
Diatomite:					
Eastern states	14,000	XX	XX	XX	XX
Western states	49,800	XX	XX	XX	XX
Total	XX	47,500	51,700	51,700 r/	52,000 e/
Feldspar:					
Eastern states: e/					
Feldspar sand	70,000	65,000	50,000	50,000	50,000
Feldspar stone	10,000	10,000	10,000	10,000	10,000
Western states: Marketable including byproduct	338,000	329,000	325,000	300,000 r/	300,000 e/
Fluorspar:					
Eastern states	61,800	15,500	--	--	--
Western states:					
Acid-grade e/	75,800	54,000	50,000	39,000 r/	39,000
Metallurgical-grade e/	9,550	7,000	3,050	997 r/	1,000
Total	XX	76,500	53,100	40,000 r/	40,000 e/
Graphite: Western states:					
Crude	19,300	15,800	12,000	8,360 r/	8,000 e/
Marketable 5/	47,300	45,400	36,900	35,500	38,500
Gypsum and anhydrite, marketable:					
Eastern states	2,300,000 e/	XX	XX	XX	XX
Western states	2,170,000	XX	XX	XX	XX
Total	XX	4,210,000 e/	4,350,000 e/	2,680,000	2,830,000
Lime, quicklime, dead-burned dolomite:					
Eastern states	3,000,000 e/	XX	XX	XX	XX
Western states	6,890,000	XX	XX	XX	XX
Total	XX	7,530,000	7,540,000	7,480,000	8,510,000
Magnesium salts (byproduct of potash mining):					
Eastern states	585,000 e/	XX	XX	XX	XX
Western states	1,130,000	XX	XX	XX	XX
Total	XX	1,550,000	1,040,000 e/	797,000 r/	818,000
Nitrogen: N content of ammonia:					
Eastern states	1,020,000	XX	XX	XX	XX
Western states	1,670,000	XX	XX	XX	XX
Total	XX	2,120,000	2,110,000	2,100,000	2,170,000
Phosphate materials:					
Phosphatic fertilizers, P2O5 content:					
Eastern states	54,000	XX	XX	XX	XX
Western states	873,000	XX	XX	XX	XX
Total e/	XX	736,000	718,000	730,000	750,000

See footnotes at end of table.

TABLE 1--Continued  
GERMANY: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity	1990	1991	1992	1993	1994
<b>INDUSTRIAL MINERALS--Continued</b>					
Thomas slag: Western states:					
Gross weight	128,000	142,000	120,000	110,000 r/	50,000 e/
P2O5 content	19,000	21,000	18,000 e/	16,000 r/ e/	8,000 e/
Pigments, mineral, natural: Western states	6,220	7,040	10,100	7,710 r/	8,000 e/
Potash:					
Crude, gross weight:					
Eastern states	26,200,000	XX	XX	XX	XX
Western states	26,100,000	XX	XX	XX	XX
Total	XX	41,300,000	37,300,000	30,400,000	34,600,000
Crude, K2O content:					
Eastern states	3,140,000	XX	XX	XX	XX
Western states	2,800,000	XX	XX	XX	XX
Total	XX	4,670,000	4,260,000	3,510,000 r/	4,000,000 e/
Marketable, K2O content:					
Eastern states	2,650,000	XX	XX	XX	XX
Western states	2,310,000	XX	XX	XX	XX
Total	XX	3,860,000	3,460,000 r/	2,860,000 r/	3,290,000
Pyrite, marketable concentrate, gross weight:					
Eastern states	135,000 e/	XX	XX	--	--
Western states	302,000	XX	XX	--	--
Total	XX	219,000	52,900	--	--
Salt, marketable:					
Evaporated:					
Eastern states	44,800	11,500	7,850	8,560	(6/)
Western states	785,000	552,000 r/	563,000 r/	550,000 r/	540,000
Rock and other:					
Eastern states	4,080,000	2,440,000	1,980,000	1,900,000	(6/)
Western states	10,800,000	11,900,000 r/	10,200,000 r/	10,200,000 r/	11,600,000
Total	XX	14,900,000 r/	12,700,000 r/	12,700,000 r/	12,100,000
Sodium compounds, n.e.s.:					
Soda ash, manufactured:					
Eastern states	850,000	XX	XX	XX	XX
Western states	1,440,000	XX	XX	XX	XX
Total	XX	1,950,000 e/	1,640,000 e/	1,590,000	1,380,000
Sulfate, manufactured:					
Eastern states	170,000 e/	XX	XX	XX	XX
Western states	167,000	XX	XX	XX	XX
Total	XX	146,000	114,000	107,000	102,000
Stone, sand and gravel:					
Stone:					
Dimension, crude and partly worked:					
Western states 3/	189,000,000 r/	177,000,000 r/	178,000,000 r/	198,000,000 r/	200,000,000 e/
Dolomite:					
Eastern states	450,000 e/	300,000 e/	--	--	--
Western states	934,000	1,030,000	914,000	788,000 r/	800,000 e/
Limestone, industrial:					
Eastern states	15,000,000 e/	6,410,000	10,200,000	(6/)	(6/)
Western states	48,700,000	51,700,000	52,800,000	59,900,000	62,300,000
Quartz and quartzite:					
Eastern states	15,000 e/	--	7,500 e/	2,200 r/ e/	(6/)
Western states	283,000	26,000	22,000	22,000 e/	10,000
Slate:					
Eastern states	75,000 e/	50,000 e/	35,000	(6/)	(6/)
Western states	11,600	14,600	20,400	66,900	89,400
Sand and gravel:					
Building sand and gravel:					
Eastern states	50,000,000 e/	25,700,000	40,600,000	(6/)	(6/)
Western states	159,000,000	163,000,000	171,000,000	213,000,000	244,000,000
Gravel including terrazzo splits:					
Eastern states	22,000,000 e/	20,100,000	29,900,000	(6/)	(6/)
Western states	128,000,000	132,000,000	140,000,000	172,000,000 r/	201,000,000
Sand:					
Foundry:					
Eastern states	1,100,000 e/	500,000 e/	--	--	--
Western states	2,920,000	2,850,000	2,760,000	2,400,000	3,240,000
Industrial (glass):					
Eastern states	750,000 e/	594,000	543,000	(6/)	(6/)
Western states	6,480,000	7,070,000	7,400,000	7,370,000	7,800,000

See footnotes at end of table.

TABLE 1--Continued  
GERMANY: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity	1990	1991	1992	1993	1994
<b>INDUSTRIAL MINERALS--Continued</b>					
<b>Sulfur:</b>					
Pyrites, S content:					
Eastern states	20,000 e/	--	--	--	--
Western states	130,000 e/	95,000 e/	25,000 e/	--	--
<b>Byproduct:</b>					
Eastern states	260,000 e/	84,000	99,600	(6/)	(6/)
Western states	1,140,000	1,100,000	1,040,000	1,170,000	1,120,000
Of which from natural gas and petroleum	915,000 r/	1,070,000	1,020,000	1,140,000	1,090,000
Total	XX	1,280,000 e/	1,160,000 e/	1,170,000	1,120,000
<b>Sulfuric acid: (SO<sub>3</sub>)</b>					
Eastern states	352,000	XX	XX	XX	XX
Western states	3,230,000	XX	XX	XX	XX
Total	XX	3,070,000	3,040,000	2,880,000	2,790,000
Talc and steatite: Western states	21,400	22,600	23,500	21,200 r/	20,000 e/
Other: Eastern states	4,000,000 e/	2,500,000 e/	1,000,000 e/	3,090,000	3,440,000
<b>MINERAL FUELS AND RELATED MATERIALS</b>					
Asphalt and bitumen, natural: Western states	19,300	19,700	22,300 r/	19,900 r/	23,100
Carbon black: Western states 3/	394,000	380,000	376,000	335,000	299,000
<b>Coal:</b>					
Anthracite and bituminous, marketable:					
Western states	70,200,000	66,500,000	65,900,000	58,300,000 r/	52,800,000 e/
<b>Lignite:</b>					
Eastern states	249,000,000	XX	XX	XX	XX
Western states	108,000,000	XX	XX	XX	XX
Total	XX	279,000,000	242,000,000	222,000,000	207,000,000
<b>Coke:</b>					
Of anthracite and bituminous coal:					
Eastern states	1,100,000	XX	XX	XX	XX
Western states	17,600,000	XX	XX	XX	XX
Total	XX	15,900,000	14,700,000	12,100,000	11,000,000
Of lignite:					
Eastern states	3,180,000 r/	XX	XX	XX	XX
Western states	174,000	XX	XX	XX	XX
Total	XX	862,000	284,000	186,000	172,000
<b>Fuel briquets:</b>					
Of anthracite and bituminous coal: Western states					
Of lignite (including dust and dried):	756,000	860,000	677,000	585,000	460,000
Eastern states	37,600,000 r/	XX	XX	XX	XX
Western states	5,360,000 r/	XX	XX	XX	XX
Total	XX	24,100,000 r/	16,700,000 r/	13,900,000 r/	10,900,000
<b>Gas:</b>					
<b>Manufactured:</b>					
Eastern states	million cubic meters	5,850	XX	48	(6/)
Western states:					
Blast furnace	do.	5,230 r/	4,130	4,500	4,730
Coke oven	do.	4,690 r/	3,350	3,500	2,900
Total	do.	XX	7,480 r/	8,050 r/	7,290 r/
<b>Natural:</b>					
<b>Gross:</b>					
Eastern states	do.	6,720	XX	XX	XX
Western states	do.	16,000	XX	XX	XX
Total	do.	XX	21,400	21,100	20,300 r/
<b>Marketed:</b>					
Eastern states	do.	6,710	XX	XX	XX
Western states	do.	14,700	XX	XX	XX
Total	do.	XX	20,000	17,600	17,500
<b>Peat: Western states: 3/</b>					
Agricultural use		2,980,000	2,880,000	2,720,000	2,740,000
Fuel use		238,000	225,000 e/	188,000	180,000
<b>Petroleum:</b>					
<b>Crude:</b>					
Eastern states	thousand 42-gallon barrels	390 r/	XX	XX	XX
Western states	do.	26,000	XX	XX	XX
Total	do.	XX	25,200	23,900 r/	22,000
<b>Refinery products:</b>					
<b>Liquefied petroleum gas:</b>					
Eastern states	do.	3,020	XX	XX	XX
Western states	do.	26,300	XX	XX	XX
Total	do.	XX	29,100	30,800	32,800

See footnotes at end of table.

TABLE 1--Continued  
GERMANY: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity	1990	1991	1992	1993	1994	
<b>MINERAL FUELS AND RELATED MATERIALS--Cont.</b>						
Petroleum--Continued:						
Refinery products--Continued:						
Gasoline including aviation:						
Eastern states	do.	40,000	XX	XX	XX	XX
Western states	do.	193,000	XX	XX	XX	XX
Total	do.	XX	211,000	215,000	214,000	225,000
Naphtha:						
Eastern states	do.	NA	XX	XX	XX	XX
Western states	do.	64,000	XX	XX	XX	XX
Total	do.	XX	61,000	69,100	76,100	87,300
Mineral jelly and wax:						
Eastern states (sales)	do.	700 e/	XX	XX	XX	XX
Western states (sales)	do.	3,830	XX	XX	XX	XX
Total (sales)	do.	XX	3,060	4,270	3,930	3,820
Kerosene and jet fuel:						
Eastern states (kerosene only)	do.	85 e/	XX	XX	XX	XX
Western states (sales)	do.	18,800	XX	XX	XX	XX
Total	do.	XX	18,200	17,800	20,600	23,000
Distillate fuel oil:						
Eastern states	do.	46,300 e/	XX	XX	XX	XX
Western states	do.	253,000	XX	XX	XX	XX
Total	do.	XX	308,000	309,000	344,000	355,000
Refinery gas:						
Eastern states	do.	4,310	XX	XX	XX	XX
Western states (sales)	do.	27,500	XX	XX	XX	XX
Total	do.	XX	32,300 e/	34,300 r/ e/	35,100	36,800
Lubricants:						
Eastern states	do.	3,430	XX	XX	XX	XX
Western states	do.	4,670	XX	XX	XX	XX
Total	do.	XX	4,860	5,110	4,690	4,880
Non-lubricating oils:						
Eastern states	do.	150 e/	XX	XX	XX	XX
Western states	do.	7,840	XX	XX	XX	XX
Total	do.	XX	7,240	7,290	6,190	6,920
Residual fuel oil:						
Eastern states	do.	20,000 e/	XX	XX	XX	XX
Western states	do.	58,000	XX	XX	XX	XX
Total	do.	XX	75,900	89,800	91,800	87,200
Bitumen and other residues:						
Eastern states	do.	4,400 e/	XX	XX	XX	XX
Western states	do.	17,200	XX	XX	XX	XX
Total	do.	XX	22,000 e/	23,200 e/	23,100	25,500
Bituminous mixtures:						
Eastern states	do.	300 e/	XX	XX	XX	XX
Western states	do.	918	XX	XX	XX	XX
Total	do.	XX	1,420	1,210	1,100	1,170
Petroleum coke: Western states	do.	8,250	8,660	8,630	8,940	9,540
Unspecified: Western states 3/	do.	19,100	20,100	19,400	15,900	17,400
Total:						
Eastern states	do.	122,000 e/	XX	XX	XX	XX
Western states	do.	703,000	XX	XX	XX	XX
Total	do.	XX	802,000 e/	834,000 e/	878,000	923,000

e/ Estimated. r/ Revised. NA Not available. XX Not applicable.

1/ Table contains data available through July 31, 1995.

2/ Previously published and 1994 data are rounded by the U.S. Bureau of Mines to three significant digits; may not add to totals shown.

3/ Production in eastern States has historically been confidential; no basis exists for reliable estimation.

4/ Sales.

5/ Includes production from imported materials.

6/ Included data for Western states.

TABLE 2  
GERMANY: STRUCTURE OF THE MINERAL INDUSTRY FOR 1994

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Alumina	VAW Aluminium AG (special aluminas)	Plant at Schwandorf	430
Do.	Aluminium Oxid Stade GmbH (VAW, 50%)	Plant at Stade	750
Do.	Martinswerke GmbH (fused alumina, Alusuisse, 100%)	Plant at Bergheim	350
Aluminum	VAW Aluminium AG	Smelters at: Innwerke at Töging, Elbwerke at Stade, Rheinwerke at Neuss, Lippenwerke at Lünen (secondary)	300
Do.	Aluminium Essen GmbH	Smelter at Essen-Borbeck	95
Do.	Hamburger Aluminium-Werke GmbH (VAW, 33%)	Smelter at Hamburg	120
Cement	38 companies, the major ones are:	64 mills (grinding) including:	59,000
Do.	Heidelberger Zement AG	Plants at Blaubeuren-Schelklingen, Leimen, Hassmersheim, Burglengenfeld, Kiefersfelden, et al.	(9,200)
Do.	Dyckerhoff AG	Plants at Amoneburg, Golheim, Neuwied, Neubeckum, et al.	(7,250)
Do.	E. Schwenk, Zementwerke KG	Plants at Allmendingen, Karlstadt, and Mergelstetten	(6,000)
Do.	Anneliese Zementwerke AG	Plants at Ennigerloh-Nord, Ennigerloh-Sud, Geske, and Paderborn	(3,500)
Coal: Anthracite and Bituminous	Four companies:	About 27 mines, including:	72,500, including:
Do.	Ruhrkohle AG	17 mines in Ruhr region	(54,000)
Do.	Saarbergwerke AG	5 mines in Saar basin	(11,000)
Do.	Preussag Anthrazit GmbH	Mine at Ibbenbüren	(2,500)
Copper	Norddeutsche Affinerie AG (Metallgesellschaft, 35%; M.I.M. Holdings, 35%; Degussa, 30%)	Smelter and refinery, both at Hamburg	290
Do.	Hüttenwerke Kayser AG	Refinery at Lünen	350
Lead	Metaleurop Weser Blei GmbH	Smelter and refinery at Nordenham	120
Do.	Berzelius Metallhütten GmbH	QSL smelter at Stolberg	113
Do.	do.	Refinery at Duisberg	75
Do.	Norddeutsche Affinerie AG	Refinery at Hamburg	120
Lignite	Rheinische Braunkohlenwerke AG (Rheinbraun)	Surface mines in Rhein Basin: Garzweiler, Fortuna/Bergheim, Zukunft/Inden, and Hambach	50
Do.	Braunswegische Kohlen-Bergwerke AG	Surface mines in Helmstedt Basin: Alversdorf, Helmstedt, Schöningen, Offledben, and Buschhaus	105,000
Do.	LAUBAG (RWE Energie, PreussenElektra, Bayernwerk)	Surface mines in Lausitz Basin: Cottbus, Glückauf, Oberlausitz, Senftenburg, and Welzow	4,500
Do.	MIBRAG (Vereinigte Mitteldeutsche Braunkohlenwerke AG)	Surface mines in Bitterfeld Basin: Borna, Deuben, Geisetal, and Regis	116,000
Natural gas	million cubic meters	Brigitta Erdgas und Erdöl GmbH, and Elwerath Erdgas und Erdöl GmbH	100,000
Do.	do.	Mobil Erdgas-Erdöl GmbH	9,500
Do.	do.	Other companies	4,000
Petroleum:			2,000
Crude	42-gallon barrels per day	The largest companies are:	80,000
Do.	do.	Elwerath Erdgas und Erdöl GmbH	including:
Do.	do.	Wintershall AG	(30,000)
Do.	do.	Deutsche Texaco AG	(21,000)
Do.	do.	Elbe-Weser Rivers	(20,000)
Refined:	do.	About 25 companies, of which the largest:	20 refineries
Do.	do.	Deutsche Shell AG	2,062,000
Do.	do.	Esso AG	including:
Do.	do.	Ruhr Oel AG	(256,000)
Do.	do.	Erdoel Raffinerie Neustadt GmbH	(245,000)
Potash	Kali und Salz AG	Mines at Bergmannsseggen-Hugo, Niedersachsen-Riedel, Salzdetfurth, Sigmundshall, Hattorf, Neuhof-Ellers, and Wintershall	(215,500)
Do.	MDK (Mitteldeutsche Kali und Sondershausen)	10 mines mostly in the state of Thüringen	(145,000)
Salt (rock)	Kali und Salz AG	Mines at Bad Friedrichshall-Kochendorf, Braunschweig-Lüneburg, Heilbronn, Riedel, Stetten, and Wesel (Borth)	2,300 K2O
			15,000

TABLE 2--Continued  
GERMANY: STRUCTURE OF THE MINERAL INDUSTRY FOR 1994

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Steel	Major companies include:	About 25 plants	45,000, including:
Do.	Thyssen Stahl AG	Plants at Krefeld, Duisburg, Hattungen Oberhausen, and Witten	(13,000)
Do.	Fried. Krupp AG Hoesch-Krupp	Plants at Bochum, Dortmund, and Rheinhausen	(9,000)
Do.	Stahlwerke Peine-Salzgitter AG	Plants at Peine and Salzgitter	(4,500)
Do.	Klöckner-Werke AG	Plants at Bremen and Osnabruck	(4,200)
Zinc	Ruhr-Zink GmbH	Refinery at Datteln	200
Do.	Berzelius Metallhütten GmbH	Imperial smelter and fire refinery at Duisburg	100
Do.	Metaleurop Weser Zink GmbH	Refinery at Nordenham	130